

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

Puzzle Table Area Calculator MCP

Check if your next puzzle fits your available table space.

Puzzle Table Area Calculator MCP helps you manage your puzzle assembly areas. Your AI client can quickly calculate surface areas, check if specific puzzle dimensions fit within your registered tables, and verify that your measurements are physically logical before you clear off a workspace.

A+ Quality Score 100/100

puzzle

area

table

fitment

dimensions



The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

Puzzle Table Area Calculator MCP

4 tools available

Cloud-hosted on Vinkius

If you have multiple tables and a growing collection of puzzles, knowing exactly where a project will fit is a constant headache. This MCP handles the math for you. You can give your AI client a list of your current tables and then ask it to run the numbers on a new puzzle. It doesn't just look at raw area; it can account for safety margins so you don't end up with pieces hanging off the edge. You can use it to audit your existing furniture to see which tables are actually large enough for a specific piece count or dimension set. It's a simple way to stop guessing and start planning your hobby space with precision.

Core Capabilities

01 — Surface Area Calculation

Your agent calculates the exact square footage or centimeterage of your workspace.

02 — Fitment Verification

The AI checks if puzzle dimensions stay within the boundaries of a specific table.

03 — Dimension Validation

Your client catches impossible measurements before you try to plan a layout.

04 — Inventory Management

The AI maintains a list of all your registered assembly tables.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/puzzle-table-area-calculator — connect your AI agent in three steps.

- 01 Connect your MCP-compatible client to Vinkius.
- 02 Register your tables and their dimensions.
- 03 Ask your agent to check a puzzle's fit or calculate an area.
- 04 Receive instant confirmation on whether your project fits your space.

Connect your client to the Vinkius hosted MCP to start managing your workspace data.

Built For

This is for hobbyists and collectors who need to organize physical workspace for large-scale assembly projects.

Puzzle Enthusiasts

Users who want to know which table to clear off for a new project.

Hobby Room Organizers

People managing multiple workspaces for different physical activities.

Collectors

Individuals tracking the capacity of their storage and assembly furniture.

What Changes When You Connect

- 01 Prevents puzzles from hanging over the edge of tables.
- 02 Eliminates manual area math for multiple furniture pieces.
- 03 Identifies the best available table for a specific puzzle size.

04 Catches errors in dimension entry immediately.

Real-World Applications

Pre-Project Planning

Check if a new 1000-piece puzzle will fit on your dining table before you start unboxing.

Safety Margin Checks

Ensure you have enough extra room around a puzzle to move pieces without hitting the table edge.

Workspace Auditing

Ask your agent to find all tables in your house that are large enough for a specific project.

Furniture Management

Keep a digital record of all your available assembly surfaces and their sizes.

Patterns to Avoid

Ignoring the safety margin

❌ AVOID

You tell your agent a puzzle is 20×20 inches and it fits on a 20×20 inch table perfectly.

✓ INSTEAD

Always account for extra room so pieces don't fall off. Use ``check_puzzle_fit`` to include a safety margin in your calculations.

Manual math errors

❌ AVOID

You try to multiply length by width yourself and end up with a wrong area for a large table.

✓ INSTEAD

Let the MCP do the math. Use ``get_table_area`` to get the exact surface area based on your registered dimensions.

Unverified measurements

❌ AVOID

You enter a puzzle dimension of 500 inches for a small desk and wonder why it won't fit.

✓ INSTEAD

Run your numbers through ``validate_dimensions`` first to catch impossible or illogical measurements before you plan your layout.

The Right Fit

Connect this MCP if you manage multiple physical workspaces and want to stop guessing if a project will fit. If you only have one small desk and no intention of expanding your collection, you don't need this. The deciding factor is whether you need to audit existing furniture against new project dimensions.

Puzzle Table Area Calculator 4 Tools

These tools handle the spatial math and inventory tracking for your assembly surfaces. Use them to verify fitment and manage your workspace dimensions.

#	TOOL	DESCRIPTION
01	check_puzzle_fit	This tool determines if a specific puzzle can be placed on a given table. It can include an optional safety margin to ensure pieces stay on the surface.
02	get_available_tables	This tool provides a list of all tables currently registered in your system.
03	get_table_area	This tool calculates the total surface area of a specific table based on its dimensions.
04	validate_dimensions	This tool checks if your length and width values are physically possible and logical.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U What is the area of a table with ID 'table_01' that is 120cm long and 80cm wide?



The total surface area for table 'table_01' is 9600 square centimeters.

U Will a 5000cm² puzzle fit on table 'table_01' if I use a safety margin?



Yes, the puzzle fits on table 'table_01' with the safety margin applied.

U List all tables that have at least 5000cm² of area.



The following tables meet your requirement: table_01 (9600cm²), table_05 (5200cm²).

Frequently Asked Questions

01 How do I know if a puzzle will fit on my table?

You can use the `check_puzzle_fit` tool to compare your puzzle dimensions against a specific table's boundaries.

02 Can I include a buffer zone around my puzzle?

Yes, the `check_puzzle_fit` tool allows for an optional safety margin to ensure the puzzle stays well within the table limits.

03 What if I enter incorrect dimensions?

The `validate_dimensions` tool checks your inputs to ensure the length and width are physically logical.

04 How does the MCP know about my tables?

You provide the table data to the system, and the `get_available_tables` tool allows your agent to see everything you have registered.

05 Which AI clients can I use with this MCP?

You can use this with any MCP-compatible client like Claude, Cursor, Windsurf, or VS Code.

06 How do I know if my puzzle will fit on a table?

You can use the `check_puzzle_fit` tool. It compares the puzzle's required area against the table's available area, and you can even enable a safety margin to ensure the puzzle doesn't hang over the edges.

07 Can I see all the tables currently registered?

Yes, the `get_available_tables` tool allows you to list all registered tables. You can also filter them by a minimum area requirement.

08 What happens if I provide invalid dimensions?

The `validate_dimensions` tool will check the inputs. If the dimensions are non-numeric or non-positive, it will return an invalid status with a descriptive message.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

`https://edge.vinkius.com/[TOKEN]/mcp`

CLIENT	WHERE TO CONFIGURE
 Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
 VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"puzzle-table-area-calculator": { "url": "..."} </code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
 Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

-  Ask ChatGPT 
-  Ask Claude 
-  Ask Perplexity 
-  Ask Gemini 
-  Ask Grok 

READY TO CONNECT

Puzzle Table Area Calculator is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and
start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

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Platform	Vinkius Cloud for AI Agents
Endpoint	<code>https://edge.vinkius.com/{token}/mcp</code>

LICENSE & USAGE

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